OCEAN GALES AND STORMS, AUGUST 1937

Vessel	Voyage		Position at time of lowest barometer		Gale began August—	Time of lowest barometer August—	Gale ended August—	Lowest barometer	Direction of wind when gale began	Direction and force of wind at time of lowest barometer	Direction of wind when gale ended	Direction and highest force of wind	Shifts of wind near time of lowest barometer
	From—	To—	Latitude	Longitude									
NORTH ATLANTIC OCEAN			° ′	° ′				*Inches*					
Wellfield, Br. M. S.	Boston	Carapita	37 55 N.	68 00 W.	[1] 31	1a, 1	1	29.91	SW	WSW, 8	W	SW, 9	SW-W.
Bergensfjord, Nor. S. S.	New York	Bergen	41 00 N.	67 25 W.	1	8a, 1	2	29.58	NE	NNW, 8	S	NNW, 8	ENE-NNW-SW.
Volendam, Du. S. S.	do	Rotterdam	41 11 N.	63 37 W.	1	Noon, 1	1	29.86	SSE	SSE, 8	SSW	SSE, 8	SSE-S.
Normandie, Fr. S. S.	Southampton	New York	40 53 N.	65 20 W.	1	Noon, 1	1	29.64	SW	W, 10	W	WSW, 10	SW-W.
Sarcoxie, Am. S. S.	Havre	do	42 00 N.	64 15 W.	1	3p, 1	1	29.75	SSE	SW, 8	WSW	SW, 8	S-SW.
Ceres, Du. S. S.	Amsterdam	San Juan	44 36 N.	31 45 W.	3	10a, 2	3	30.14	NE	S, 3	NE	NE, 8	S-NE.
Bienville, Am. S. S.	Mobile	Liverpool	33 24 N.	76 30 W.	6	7a, 5	6	29.88	SE	ENE, 6	S	SE, 10	ENE-NE.
Andrea F. Luckenbach, Am. S. S.	Colon	New York	34 33 N.	74 00 W.	5	8p, 5	6	29.81	SSE	SE	E	E, 8	SE-E.
Atlantis, Am. Ketch		Woods Hole	37 36 N.	71 24 W.	6	9p, 6	7	[2]29.80	SE	SE, 10	NW	SE, 10	SE-NE.
American Trader, Am. S. S.	London	New York	41 10 N.	65 50 W.	7	Mdt, 7	8	29.67	SE	SSW, 9	W	SSW, 9	SE-W.
Poseidon, Du. S. S.	Savannah	Glasgow	54 39 N.	13 48 W.	23	4a, 24	24	29.77	SSW	SSW, 7	NW	SSW, 8	None.
Montreal City, Br. S. S.	Fowey	Portland, Me.	50 36 N.	27 15 W.	24	7p, 24	25	29.67	S	SW, 9	Var.	SW, 9	S-NW.
Pres. Roosevelt, Am. S. S.	Cobh	New York	[3]47 56 N.	35 58 W.	24	2a, 25	25	29.84	SSE	SW, 7	SW	S, 9	S-NW.
Emile Francqui, Belg. S. S.	Antwerp	do	47 45 N.	34 40 W.	25	2p, 25	26	29.85	S	S, 9	W	S, 10	
Volendam, Du. S. S.	Rotterdam	do	50 06 N.	33 44 W.	25	7p, 25	25	29.54	SSW	S, 8	NNW	S, 8	SSE-WSW-NNW.
Beemsterdijk, Du. S. S.	do	do	[3]50 48 N.	25 59 W.	25	6a, 26	26	29.83	S	S, 6	S	S, 8	S-NW.
Patrick Henry, Am. S. S.	New Orleans	London	48 15 N.	26 45 W.	26	3a, 27	29	29.91	SSW	SW, 7	N	SW, 8	SW-N.
Colombia, Am. S. S.	New York	Port au Prince	27 39 N.	74 05 W.	28	3p, 28	29	29.84	SE	SE, 7	SE	SE, 8	None.
C. A. Canfield, Am. S. S.	Paulsboro	Cristobal	25 34 N.	74 18 W.	28	4p, 28	29	29.88	SE	SSE, 7	SE	S, 8	SE-SSE.
Bergensfjord, Nor. S. S.	Bergen	New York	54 35 N.	36 00 W.	27	8a, 29	30	29.50	SSW	SE, 2	NW	W, 9	W-SE-NW.
Solana, Am. S. S.	New York	Lockport	28 36 N.	78 38 W.	29	6p, 29	30	29.75	SE	SE, 10	S	SE, 10	None.
Matagalpa, Am. M. S.	Baltimore	New Orleans	28 30 N.	78 40 W.	29	7p, 29	29	29.69	ESE	ESE, 9	ESE	ESE, 9	ESE-SSW.
Gulfoil, Am. S. S.	Philadelphia	Port Arthur	30 00 N.	80 15 W.	29	5a, 30	30	29.79	E	SE, 9	SSE	SE, 9	ESE-SE.
American Trader, Am. S. S.	London	Boston	[3]49 19 N.	24 51 W.	30	3a, 31	[4]1	29.61	SW	SW, 6	NW	W, 8	SW-W.
NORTH PACIFIC OCEAN													
Corneville, Nor. M. S.	Hong Kong	Los Angeles	21 06 N.	126 06 E.	1	8p, 1	3	29.24	W	W, 6	S	S, 11	W-S.
California, Am. S. S.	Los Angeles	Acapulco	21 05 N.	107 38 W.	4	6a, 4	4	29.78	ESE	ESE, 7	SE	ESE, 7	
Steel Navigator, Am. S. S.	Shanghai	Manila	28 06 N.	122 06 E.	9	8a, 8	9	29.61	SW	SW, 6	SW	SW, 8	None.
Si-Kiang, Fr. S. S.	Hong Kong	Kobe	29 42 N.	122 48 E.	13	2p, 14	15	29.38	N	W, 7	S	WNW, 8	N-W-S.

[1] July. [2] Barometer uncorrected. [3] Position approximate. [4] September.

NORTH PACIFIC OCEAN, AUGUST 1937

By WILLIS E. HURD

Atmospheric pressure.—The Aleutian LOW, which had continued strongly in evidence through July, was practically nonexistent in August 1937. The average barometer over the eastern Aleutians was 0.15 inch or more higher than the normal. In the Gulf of Alaska, however, there was some reversal of barometric conditions, with Juneau, average barometer 29.92, showing a pressure departure from normal of −0.10.

Over the great central body of the ocean, pressure was mostly anticyclonic and high barometer prevailed from the northern coast of the United States far westward into east longitudes, and from Dutch Harbor to Honolulu; both of these stations had an average pressure of 30.01.

In the Far East, although several tropical disturbances occurred to the west and northwest of the Marianas, yet the average pressure at Guam was only 0.02 inch below the normal, while at Chichishima, in the Ogasawara Islands south of Japan, the August average, 29.94 inches, was 0.18 inch higher than the normal.

Cyclones and gales.—The weather in middle and high latitudes of the North Pacific was unusually quiet during August 1937. Several LOWS appeared over the Aleutian region, but these, so far as at present indicated, caused no winds of gale force. In middle latitudes the highest wind reported from other than a tropical disturbance was of force 7 from the north-northwest, near 36° N., 131° W., experienced by the Japanese motorship *Heiyo Maru*.

TABLE 1.—*Averages, departures, and extremes of atmospheric pressure at sea level, North Pacific Ocean, August 1937*

Station	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	Inches	*Inch*	*Inches*		*Inches*	
Point Barrow	29.77	−0.12	30.18	25	29.24	3
Dutch Harbor	30.01	+.15	30.36	19	29.56	2
St. Paul	29.97	+.19	30.30	19	29.50	1
Kodiak	29.91	+.05	30.30	31	29.46	2
Juneau	29.92	−.10	30.20	16	29.40	3
Tatoosh Island	30.08	+.08	30.33	2	29.66	30
San Francisco	29.93	+.01	30.07	25	29.77	13
Mazatlan	29.88	+.04	29.98	17, 25, 26	29.74	29
Honolulu	30.01	.00	30.10	2	29.87	29
Midway Island	30.12	+.04	30.24	7, 8	29.90	30
Guam	29.80	−.02	29.89	28	29.74	10, 23, 24, 25
Manila	29.74	.00	29.83	21	29.59	2
Hong Kong	29.65	−.01	29.81	26	29.34	3
Naha	29.77	+.08	29.94	17, 23, 25, 28	29.03	1
Chichishima	29.94	+.18	30.06	16, 28	29.68	9

NOTE.—Data based on 1 daily observation only, except those for Juneau, Tatoosh Island, San Francisco, and Honolulu, which are based on 2 observations. Departures are computed from best available normals related to time of observation.

Tropical disturbances—Typhoons.—Subjoined is an account of the typhoons and depressions on Far Eastern waters during August 1937, prepared by the Rev. Bernard F. Doucette, S. J., of the Philippine Weather Bureau. With further reference to the first typhoon there described, that of July 29–August 5, a report received from the Norwegian motorship *Corneville* shows that the storm was of near hurricane intensity on August 2 to the southeast of Taiwan. The ship, east-bound from Hong Kong, had a south gale of force 11 at 6 a. m. of that date, and at

8 p. m., near 21° N., 126° E., had a low barometer reading of 29.24.

Disturbances of the southeastern North Pacific.—Disturbed weather conditions occurred off the Central American west coast on August 2, and off the Mexican coast on the 3d. Cyclonic circulation, however, appeared only immaturely developed. By the 4th the unsettled condition had proceeded to the entrance to the Gulf of California, and here at 6 a. m. the American steamer *California* had an east-southeast wind of force 7, lowest barometer 29.78. Thereafter the disturbance apparently went seaward and disintegrated.

On August 31 the American steamer *Point Estero*, in connection with an east-southeast wind of force 6 and barometer 29.78 observed off the Mexican coast near Acapulco, reported a tropical disturbance in the vicinity. There were slight evidences of the northwestward movement of a small unsettled region until September 3, but no further development of it has later been reported.

Radio reports on the 31st from the American S. S. *General Sherman* showed the existence of an intense tropical cyclone west of the Revillagigedo Islands. At 2 p. m., in 18°12′ N., 117°30′ W., the vessel reported a northeasterly hurricane wind, barometer 29.29, and at 5 p. m., wind of a similar force from a northwesterly direction, barometer 29.12, in the same position. We have no further history of this storm.

Fog.—Fog lessened greatly since July over the northwestern part of the ocean. Along the central part of the northern steamer routes fog continued frequent, occurring on 20 to 30 percent of the days within the region 40°–50° N., 180° and 160° W. Along the Washington-Oregon coasts there were 4 days on which fog was reported; along the California coast, 11 days; and off the coast of Lower California, 2 days.

TYPHOONS AND DEPRESSIONS OVER THE FAR EAST, AUGUST 1937

Rev. BERNARD F. DOUCETTE, S. J.

[Weather Bureau, Manila, P. I.]

Typhoon July 29–August 5, 1937.—For about 3 days, there was a strong steady current of Southwest monsoon air flowing over the Archipelago toward the ocean regions east of the Balintang Channel before any definite center manifested itself. Then, on July 29, about 300 miles east of Aparri, it was certain that a typhoon was developing. Stationary in this location for 2 days, it then moved slowly and irregularly in a generally northerly direction, inclining somewhat to the north-northwest August 1 and 2, when it was east-southeast of Ishigakijima. On August 3 the storm was quite close to China, after a rapid northwesterly movement across the Eastern Sea, a course which was followed into the continent. August 5 found it degenerated into a mild disturbance central about 300 miles west by north of Shanghai; no indications of it could be found on the following days.

This typhoon manifested its intensity when crossing the southern part of the Nansei (Loochoo) Islands. At noon (Manila time) August 2 Ishigakijima reported pressure of 734.5 millimeters (28.917 inches) with northwest winds, force 2. Winds of force 8 and 9 were reported during these days from ships in the Eastern Sea. Shanghai, August 4, 6 a. m. (Manila time), had a pressure of 743.1 millimeters (29.256 inches) with southeast winds, force 6.

In the Philippines, during the course of this typhoon, heavy rains fell over Central Luzon, resulting in extensive floods. Dikes along the rivers were broken by the high waters, resulting in the loss of much property and 28 lives, as reported by the newspapers of August 6.

Typhoon August 1–15, 1937.—A low-pressure area was observed August 1 about halfway between Guam and Yap. This apparently mild disturbance moved rather slowly in a northwesterly direction to a location about 600 miles east by north of Manila, where it intensified into a typhoon which began to move rapidly toward the north. It inclined to the northwest on August 12, a course which brought it, at 6 a. m. (Manila time) August 13, about 90 miles west of Naha. Continuing this northwesterly motion, it reached the vicinity of the mouth of the Yangtze River. After August 15 no trace of the storm could be found over the western part of the Yellow Sea, the region toward which it had been moving.

Similar to the typhoon earlier in the month, the Nansei (Loochoo) Islands felt the strength of this storm. August 12 at noon (Manila time) Naha had the pressure value of 746.0 millimeters (29.370 inches) with east-southeast winds, force 6. Ishigakijima at the same time had 746.5 millimeters (29.390 inches) north-northwest winds, force 6. Two days later, Gutslaff reported for the afternoon weather map a value of 749.1 millimeters (29.492 inches) with north-northeast winds, force 6, with the center passing a few hours later, within 100 miles to the east.

Typhoon August 11–16, 1937.—Originating about 180 miles south-southwest of Guam, this typhoon, quite fully developed, moved along a northwesterly course to the ocean regions east of Balintang Channel, where it filled up when over 300 miles from the Philippines. The observations received from the S. S. *Bahrein* indicate that the center and region of strong winds were very small and that the storm did not exert its influence over an extensive area.

Typhoon August 16–22, 1937.—From the Eastern Caroline Islands a depression appeared August 16, moving in a westerly direction. When it was central about 250 miles south of Guam, a northwesterly course was taken and the morning of August 18 found the storm of sufficient intensity to be called a typhoon. For the next 3 days, it traversed a northwesterly course across the ocean to a position about 250 miles east-northeast of Basco, Batanes Pr., where it recurved to the northeast, filling up during the afternoon after it had changed its course. This typhoon had little influence, if any, upon the weather of the Philippines.

Depression August 16–17, 1937.—A mild depression, apparently of minor importance, should be mentioned as forming about 120 miles south-southeast of Oshima, August 16, and moving westward across the Eastern Sea, disappearing into the continent late in the afternoon of August 17.

Depression August 21–22, 1937.—Over the western part of the China Sea, a depression formed a short distance east of Hainan Island, and moved westward, first appearing the morning of August 21. A short movement along a northwesterly course placed its center over the northern part of the Gulf of Tong King, where it inclined to the north, thus entering the continent.

Typhoon August 22–30, 1937.—The morning weather map of August 22 indicated a depression central about 120 miles west by south of Yap. The disturbance moved rather rapidly along a west-by-north course, and because of the rapid fall of pressure over the Archipelago, it was considered a typhoon (August 23). It continued along this west-by-north and west-northwest course across the Visayan Islands into the China Sea, not causing very high winds, yet accompanied by a decided fall in pressure.